Vassar Brothers Medical Center
Moves Trauma Care Forward in the Mid Hudson Valley
THE AMERICAN COLLEGE OF SURGEONS (ACS)-designated provisional Level II Trauma Center at Vassar Brothers Medical Center unites the broad multidisciplinary capabilities of the hospital to address the full spectrum of injuries, with dedicated trauma and other surgical care available around the clock. The team is capable of responding within minutes of a trauma activation.

MEETING A COMMUNITY NEED
The American Association for the Surgery of Trauma estimates there are 3 million nonfatal injuries and 150,000 deaths annually from trauma in the United States. It is the No. 1 cause of fatalities among Americans between the ages of 1 and 44. Peer-reviewed research indicates that patients treated at trauma centers experience significantly better outcomes, and ACS Level II certification in particular is even more strongly associated with improved survival for patients who have experienced traumatic injuries.

Early this year, Vassar Brothers Medical Center underscored its commitment to addressing the need for leading-edge trauma care in the Mid Hudson Valley. It formally opened its provisional Level II Trauma Center, providing the adult trauma population a comprehensive range of services, including emergency medicine, neurosurgery, orthopedics, anesthesia, radiology, interventional radiology, cardiology and general surgery.

Vassar Brothers Medical Center’s reputation for high-level care made the development of the trauma center a natural extension of the hospital’s services.

“Before we established the trauma center, trauma patients were coming to Vassar Brothers Medical Center anyway,” says Michael Doyle, MD, MBA, ECE, Vice President of Medical Affairs. “Our mission as a medical facility is to always provide exceptional care, so it was just a matter of establishing a greater support system to meet their needs.”

That spurred a desire among both physicians and leadership at Vassar Brothers Medical Center and Health Quest to pursue implementation of the rigorous standards of the ACS for creating a Level II Trauma Center, including assembling the required medical staff, constructing appropriate facilities and acquiring the necessary equipment. Vassar Brothers Medical Center applied for the designation in 2015.

“The ACS has phenomenal standards of what they believe a trauma center should look like,” Dr. Doyle says.
We saw these demanding standards and immediately knew it was something we wanted to attain for ourselves. This achievement is in line with our vision to be the region’s leading healthcare organization, recognized nationally for its quality, safety, service and compassion.

The trauma center opened Feb. 29, 2016, and Vassar Brothers Medical Center expects to become fully certified as a Level II Trauma Center within three years. It is an exacting process that includes annual assessments to ensure the center continues to meet ACS standards. In the state of New York, an ACS-certified Level II Trauma Center must guarantee trauma surgeons are present for 24-hour coverage. In addition, subspecialties such as orthopedics, neurosurgery, emergency medicine, radiology and critical care must be on call.

If meeting the standards is challenging, however, the implications of offering such a high level of care are significant for the Mid Hudson Valley. “A certified, Level II Trauma Center will provide our patients with everything they need in regard to trauma care,” says Ian Portelli, PhD, BCDM, PNP, MSc, Assistant Vice President of Operations & Medical Research and Director of Trauma and Acute Care Surgery for Vassar Brothers Medical Center. “As we move forward with the process, we foresee ourselves not only meeting the criteria, but exceeding them.”

Evidence-based Trauma Care

When it came time to seek certification for its trauma center, Vassar Brothers Medical Center chose to implement the rigorous standards set by the American College of Surgeons (ACS). Research indicates that a Level II Trauma Center designation by the ACS improves outcomes for trauma patients, including higher survival rates.

A 2013 study in The Journal of Trauma and Acute Care Surgery compared mortality rates in trauma centers verified by the ACS with those of centers that received only state designation. The study reviewed data from the National Trauma Databank for patients 16 years of age or older.

“Level II centers seem to benefit most from ACS verification, as state designated centers have significantly more poor performing outliers,” authors of the study wrote. “ACS verification was also associated with improved survival in level II centers.”

While some states model their trauma center criteria on ACS standards, the researchers suggested that the ACS’ painstaking process improvement requirements could help explain the better patient outcomes that result from ACS certification.

“Additionally,” they wrote, “as ACS verification is a voluntary process, pursuing this verification represents a level of commitment from the practitioners and hospital to trauma that drives performance and outcome improvement . . . .”

“A promising start

The rapid growth in patient numbers since the opening of the trauma center strongly suggests Vassar Brothers Medical Center will achieve that goal. The volume significantly exceeds what the facility’s leaders expected at the outset. As of late July, the trauma center had handled roughly 430 cases since its opening.

“We are certainly ahead of our prediction for this year in terms of number of trauma cases,” Dr. Doyle says. “This means patients are actively choosing Vassar Brothers Medical Center. That speaks to our reputation and quality of care.”

The trauma center is on track to handle 50–55 percent of trauma patient volume in the region, possibly more, he adds.

Multiple factors are driving the early success of the trauma center, but Portelli says it began with forward-thinking leadership.

“Under the guidance of Health Quest’s CEO and the President of Vassar Brothers Medical Center, we were able to tackle one of the biggest efforts we’ve undertaken in a very long time,” says Portelli, who in addition to his role as Assistant Vice President is Assistant Professor of Emergency Medicine at New York University’s School of Medicine. “The dedication and support from our leadership trickled down into every aspect of our trauma program.”

Among the key facets of Vassar Brothers Medical Center’s commitment to ensuring the trauma center meets benchmarks for ACS Level II certification and thereby fosters enhanced outcomes for trauma patients are:

+ Meticulously designed trauma bays

The Vassar Brothers Medical Center Trauma Team begins rapid-response treatment for a patient. All medical staff involved in trauma care receive in-house training that fosters team cohesion and a higher level of patient care.
The Reaching New Heights

THE TRAUMA CENTER at Vassar Brothers Medical Center has earned provisional Level II Trauma Center certification from the American College of Surgeons (ACS). That puts the facility on a three-year path to achieving full Level II certification. Among other requirements the ACS spells out for Level II Trauma Centers, hospitals must:

+ Provide round-the-clock, immediate coverage by trauma surgeons
+ Provide coverage from specialties including orthopedic surgery, neurosurgery, anesthesiology, emergency medicine, radiology and critical care
+ Include trauma prevention and continuing education programs for hospital staff
+ Incorporate a comprehensive quality assessment program

A multidisciplinary team approach involving a range of specialists and subspecialists

Close collaboration with EMS providers

TRAUMA BAYS

Vassar Brothers Medical Center has two new trauma bays designed to enable the efficient treatment of trauma patients upon arrival at the hospital.

“...a new focus on the placement of equipment and tools, to lighting and stretchers was heavily scrutinized to optimize care,” says Anne Lihau-N’Kanza, MD, Trauma Medical Director for the Division of Trauma and Acute Care Surgery at Vassar Brothers Medical Center. “Every member of the staff who enters the trauma center needs to be able to perform at his or her best, and this attention to detail makes that possible.”

An example of this highly focused design is ready access to an adjacent imaging area. Once physicians in the trauma center determine that a patient needs a CT scan, he or she can be taken to the imaging area in minutes, speeding potentially lifesaving care in a situation in which every minute may be crucial.

An additional indicator of the priority Vassar Brothers Medical Center places on trauma care and emergent care generally is a planned 264-bed tower that will incorporate a 66-bed Emergency Department with dedicated trauma rooms. This facility is slated to begin treating patients in early 2019 — approximately the time when the trauma center is expected to gain full ACS Level II certification.

TRAUMA SURGEONS

The staffing of the trauma center also exemplifies Vassar Brothers Medical Center’s devotion to providing the Mid Hudson Valley with access to technologically advanced and high-quality care. Each of the seven dedicated trauma surgeons has completed critical-care training, Dr. Lihau-N’Kanza points out.

Illustrating the team’s diverse capabilities, it includes anesthesiologists who perform transesophageal echocardiography — using ultrasound to create detailed pictures of the heart and arteries — as well as two of the few neurointerventional radiology services in the region.

Promoting continuous improvement through training is also a priority for the trauma center. All medical staff involved in trauma care receive in-house training that fosters team cohesion and a higher level of patient care.

The trauma department at Vassar Brothers Medical Center is set up to ensure rapid, effective treatment. It’s apparent when visiting the trauma bays within the hospital. Medical staff are at the ready waiting for the patient to arrive. Everyone in the room is focused on a single goal, and it’s game on. We’re unified by one mission, and that’s to provide exceptional care to our patients.”

— MICHAEL DOYLE, MD, MBA, ECE, VICE PRESIDENT OF MEDICAL AFFAIRS AT VASSAR BROTHERS MEDICAL CENTER
At the end of the day, we’re a community medical center. That’s why Vassar Brothers Medical Center was built. We understand that it’s important to care for the individual, not just the patient’s symptomatology. This approach is why Vassar Brothers Medical Center is a facility that truly goes above and beyond to provide optimal care for patients.”

— IAN PORTELLI, PhD, BCDM, PNP, MSc, ASSISTANT VICE PRESIDENT OF OPERATIONS AND MEDICAL RESEARCH FOR VASSAR BROTHERS MEDICAL CENTER, DIRECTOR OF TRAUMA & ACUTE CARE SURGERY AT VASSAR BROTHERS MEDICAL CENTER, AND ASSISTANT PROFESSOR OF EMERGENCY MEDICINE AT NEW YORK UNIVERSITY’S SCHOOL OF MEDICINE

trauma surgeons may be the orchestra director for anything post-traumatic, numerous other specialties are needed to cover the spectrum of possibilities.”

The trauma center at Vassar Brothers Medical Center has a cadre of specialists and subspecialists at the ready for any trauma case that may require their particular expertise. In addition to trauma surgeons, the center can draw on the skills of orthopedic surgeons, neurologists, cardiologists, radiologists and more.

“As a trauma department, we cross-pollinate with multiple disciplines,” Portelli says. “The team unity and effort is a beautiful experience. Specialists trained in various fields all come together in a trauma care mindset that allows everyone to think beyond his or her boundaries and truly do what’s best for the patient.”

However, trauma center staff do not see their job as complete once the initial medical crisis has passed. They facilitate smooth handoffs of patients back to their primary care physicians and to physical therapists, as needed, and they can connect patients and their families with counseling and spiritual care professionals.

EMS COMMUNICATION AND COLLABORATION

Often the first medical professionals who reach trauma victims, EMS providers are a crucial part of the trauma care team. As such, Vassar Brothers Medical Center has proactively reached out to area EMS providers to establishmutually clear communications and strong relationships that enhance the delivery of care.

“ Paramount to speed and efficiency is the emergency medical services personnel working in conjunction with the trauma team,” Dr. Lihau-N’Kanza notes. “Communication about a patient who’s coming directly from the field impacts our ability to assess, diagnose and prepare for the patient’s arrival. A proper understanding of the circumstances surrounding a case can save not only valuable time, but also lives.”

In order to build the relationship with EMS providers, the trauma center at Vassar Brothers Medical Center hosts outreach events both on and off the hospital campus to share information and answer questions about the new facility. Those efforts have been well-received in the EMS community and provide opportunities for reflection on ways to improve trauma care processes.

“The response to our events has been outstanding. Attendance has been impressive, and participant engagement has produced superb dialogue between our medical staff and EMS providers,” says Dr. Lihau-N’Kanza. “The Emergency Department theater is not an ideal venue to answer questions, give feedback or suggest modifications. These events allow us to learn to better support our local EMS team and vice versa.”
An EMS coordinator in the Emergency Department plays a vital role in those efforts at Vassar Brothers Medical Center. Responsible for developing the relationship between EMS and the trauma team, the coordinator offers systematic feedback on how all providers can ensure better care for incoming patients.

“EMS really appreciates how serious we are about providing exceptional trauma care,” Portelli says. “Paramedics want to bring patients here because of the effort we put into making the handoffs more efficient and easier for everyone involved.”

SUCCESS BUILDING ON SUCCESS

One of the many advantages of the development of a Level II Trauma Center is that lessons learned there generate spinoff benefits to the entire hospital. That is because virtually all departments within the hospital touch on trauma care in some way.

“The scrutiny with which we observe and refine our processes doesn’t just stay in trauma,” Dr. Doyle says. “When we work in trauma, we are doing quality assurance throughout the entire organization.”

For example, when lab work is needed for a trauma case, trauma care staff and lab technicians may collaboratively devise means to obtain results more quickly. Yet other patients benefit as well because those means of speeding lab results may carry over into testing that is not related to trauma cases.

Those synergies are part of what position Vassar Brothers Medical Center as the region’s go-to destination for trauma and other care.

“Every aspect of care we provide will put us in a place where patients will want to come to Vassar,” Portelli says.

To learn more about the trauma center at Vassar Brothers Medical Center, visit healthquest.org/poughkeepsie/vassar-brothers-medical-center.aspx.

Before achieving provisional Level II Trauma Center status, Vassar Brothers Medical Center was already designated as a stroke center. While different responders respond to trauma patients, the system and the process of responding rapidly was already in place here, which made the transition to a trauma center smoother.”

— ANNE LIHAU-N’KANZA, MD, TRAUMA MEDICAL DIRECTOR FOR THE DIVISION OF TRAUMA AND ACUTE CARE SURGERY AT VASSAR BROTHERS MEDICAL CENTER